

Authors

Johannes Haushofer
Stockholm University

Jeremy Shapiro
Busara Center for Behavioral Economics

Household Response to Income Changes: Evidence from an
Unconditional Cash Transfer Program in Kenya*

Johannes Haushofer¹, Jeremy Shapiro²

November 15, 2013

Abstract

This paper studies the response of poor rural households in rural Kenya to large temporary income changes. Using a randomized controlled trial, households were randomly assigned to receive unconditional cash transfers of at least USD 404 from the NGO GiveDirectly. We designed the experiment to address several long-standing questions in the economics literature: what is the shape of households' Engel curves? Do household members effectively pool income? Are there constraints to savings? Do transfers generate externalities? In addition, we study in detail the effects of transfers on psychological well-being and levels of the stress hormone cortisol. We randomized at both the village and household levels; further, within the treatment group, we randomized recipient gender (wife vs. husband), transfer timing (lump-sum transfer vs. monthly installments over 9 months), and transfer magnitude (USD 404 vs. USD 1,520). We find a strong consumption response to transfers, with an increase in monthly consumption from USD 157 to USD 194 four months after the transfer ended. Implied expenditure elasticities for food, medical and education expenditures range between 0.84 and 1.47, while the point estimates are negative for alcohol and tobacco. Intriguingly, recipient gender does not affect the household response to the program. Households may face savings constraints: monthly transfers are more likely than lump-sum transfers to improve food security, while lump-sum transfers are more likely to be spent on durables. We find no evidence for externalities on nonrecipients except for a significant positive spillover on female empowerment. Transfer recipients experience large increases in psychological well-being, and several types of transfers lead to reductions in levels of the stress hormone cortisol. Together, these results suggest that unconditional cash transfers have significant impacts on consumption and psychological well-being.

*We are deeply grateful to Fabian Dizon for outstanding project management. We further thank the study participants for graciously giving their time; Marie Gillies, Connor Hughes, Cheung Jang, Hira Mwanuzi, Joseph Njoroge, Kenneth Okumu, James Vassell, and Matthew White for excellent research assistance; the team of GiveDirectly (Michael Faye, Raphael Gitau, Pali Muthapadisan, Paul Njiru, Jay Sui, Caroline Tikh, Robin Wanchuku) for fruitful collaboration; Petra Penson for designing the intrahousehold bargaining and domestic violence module; and Anne Aloo, Michael Anderson, Akhili Banerjee, Victoria Baraso, Dan Björksten, Chris Blattman, Kate Casey, Arun Chandrasekhar, Michael Clemens, Rebecca Dizon-Hoo, Esther Duffo, Simon Gafu, Rachel Glenister, Ben Gubel, Nina Harari, Aadi Jain, Anna Fisher-Lewis, Helene Ho Liferu, David Millerstein, Paul Nicholas, Dina Pomeroy, Vincent Pons, Vincent Rood, Nick Ryan, Emma Rothchild, Simone Schaner, Xiao Ya Sheng, and seminar participants at MIT, Harvard, and NEUDC for comments and discussion. All errors are our own. This research was supported by NIH Grant R01AG020297 and Ogden Foundation Grant R-110-10 to Johannes Haushofer.

¹Abdul Latif Jameel Poverty Action Lab, MIT, E53-308, 30 Wadsworth St., Cambridge, MA 02138. jha@mit.edu
²PhD (MIT), Shapiro is a co-founder and former director of GiveDirectly, Inc. (2009-2012). This paper does not necessarily represent the views of GiveDirectly, Inc. jshapiro@givedirectly.com

Household Response to Income Changes: Evidence from an Unconditional Cash Transfer Program in Kenya

This paper studies the response of poor rural households in rural Kenya to large temporary income changes. Using a randomized controlled trial, households were randomly assigned to receive unconditional cash transfers of at least USD 404 from the NGO GiveDirectly. We designed the experiment to address several long-standing questions in the economics literature: what is the shape of households' Engel curves? Do household members effectively pool income? Are there constraints to savings? Do transfers generate externalities? In addition, we study in detail the effects of transfers on psychological well-being and levels of

the stress hormone cortisol. We randomized at both the village and household levels; further, within the treatment group, we randomized recipient gender (wife vs. husband), transfer timing (lump-sum transfer vs. monthly installments over 9 months), and transfer magnitude (USD 404 vs. USD 1,520). We find a strong consumption response to transfers, with an increase in monthly consumption from USD 157 to USD 194 four months after the transfer ended. Implied expenditure elasticities for food, medical and education expenditures range between 0.84 and 1.47, while the point estimates are negative for alcohol and tobacco. Intriguingly, recipient gender does not affect the household response to the program. Households may face savings constraints: monthly transfers are more likely than lump-sum transfers to improve food security, while lump-sum transfers are more likely to be spent on durables. We find no evidence for externalities on non-recipients except for a significant positive spillover on female empowerment. Transfer recipients experience large increases in psychological well-being, and several types of transfers lead to reductions in levels of the stress hormone cortisol. Together, these results suggest that unconditional cash transfers have significant impacts on consumption and psychological well-being.

April 20, 2015